

Sidewalk and Pedestrian Ramp Survey

DPW 05/22/06

This is a draft document. DPW continues to update this document as a result of internal and public comment.

Introduction:

- In 2004/2005 the Department of Public Works, undertook a project to examine the condition of sidewalks throughout the city. At the same time the department also examined curb cuts throughout the city. The survey is important from a number of perspectives :
 - (1) It provides an important self auditing tool,
 - (2) It provides a tool in helping prioritize reconstruction locations
 - (3) It helps establish budgetary targets
 - (4) It allows for the measurement of progress.

continued

- Limitations include:
 - (1) Evaluations of sidewalk condition are subjective
 - (2) Evaluations of curb cuts are limited to a number of parameters.

Sidewalk Survey Information

- Sidewalk material

Brick/Concrete/Asphalt

- Sidewalk Quality

Excellent/Good/Fair/Poor

Pedestrian Ramp Survey

- Slope greater than 8%
- Structural/Material Condition poor
- Ponding at base of ramp
- Ramp not in alignment with crosswalk

Sidewalk Materials

- Length of Sidewalk Surveyed: 147.3miles
- Length of Sidewalk in the City: ~ 200 miles
- Concrete Sidewalks ~ 139 miles
- Brick Sidewalks ~ 48 miles
- Asphalt Sidewalks ~ 11.7 miles
- Slate/Bluestone sidewalk not measured

CITY OF CAMBRIDGE
**SIDEWALK MATERIAL
INDEX PLAN**
MAY 2006



Sidewalk Conditions

- Excellent Sidewalks ~ 43.3miles
 - Good Sidewalks ~ 93.7 miles
 - Fair Sidewalks ~ 45.9 miles
 - Poor Sidewalks ~ 13.2 miles
-
- Survey results have been extrapolated to the entire city

Sidewalk Condition

- Concrete Sidewalks
Excellent/Good Condition~102.4 miles
- Brick Sidewalks
Excellent/Good Condition~33.6miles
- Asphalt Sidewalks
Excellent/Good Condition~0.7 miles

Sidewalk Condition

- Concrete Sidewalks

Poor Condition ~ 6.1 miles

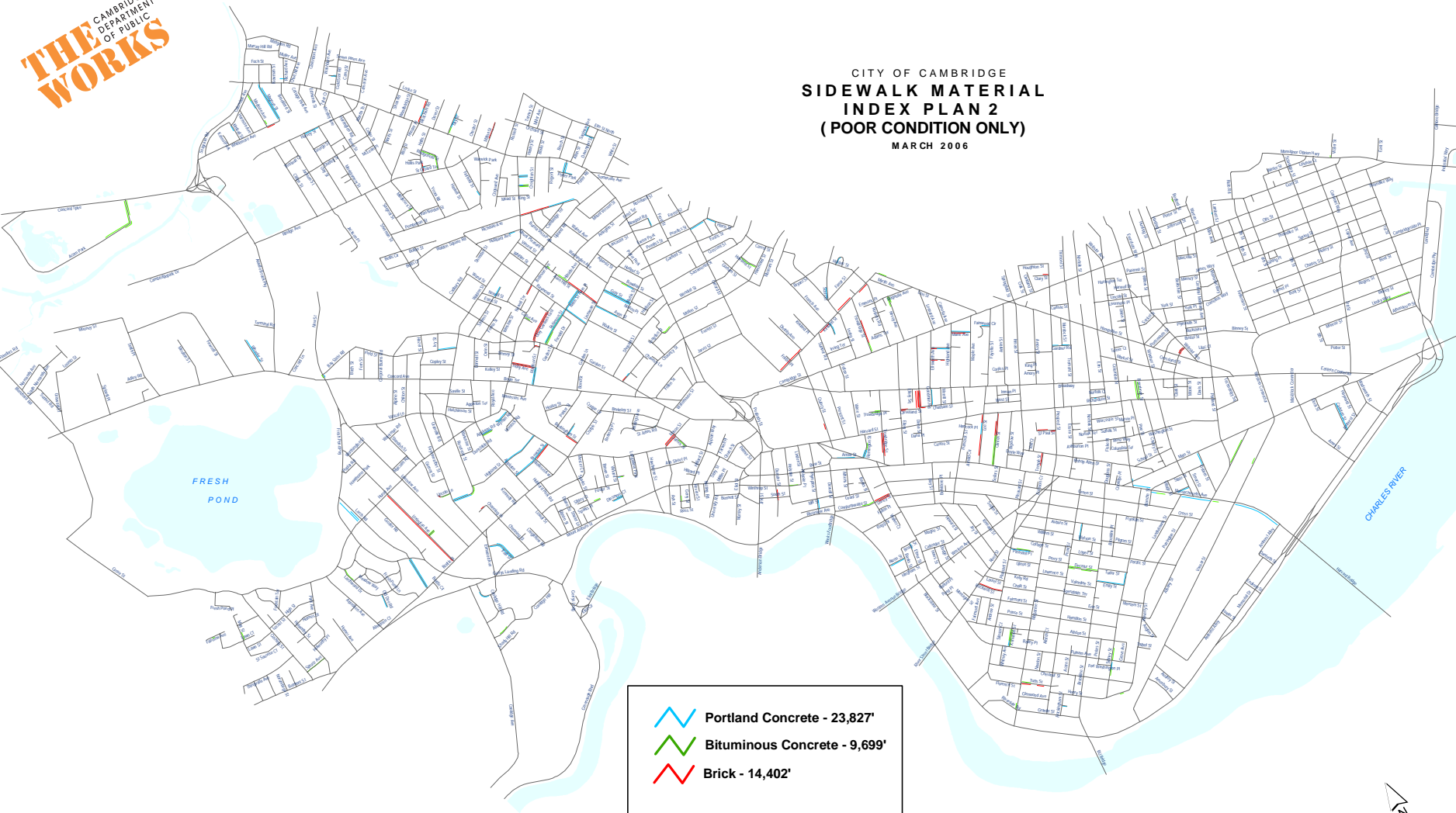
- Brick Sidewalks

Poor Condition ~ 3.7miles

- Asphalt Sidewalks

Poor Condition: ~ 2.5 miles

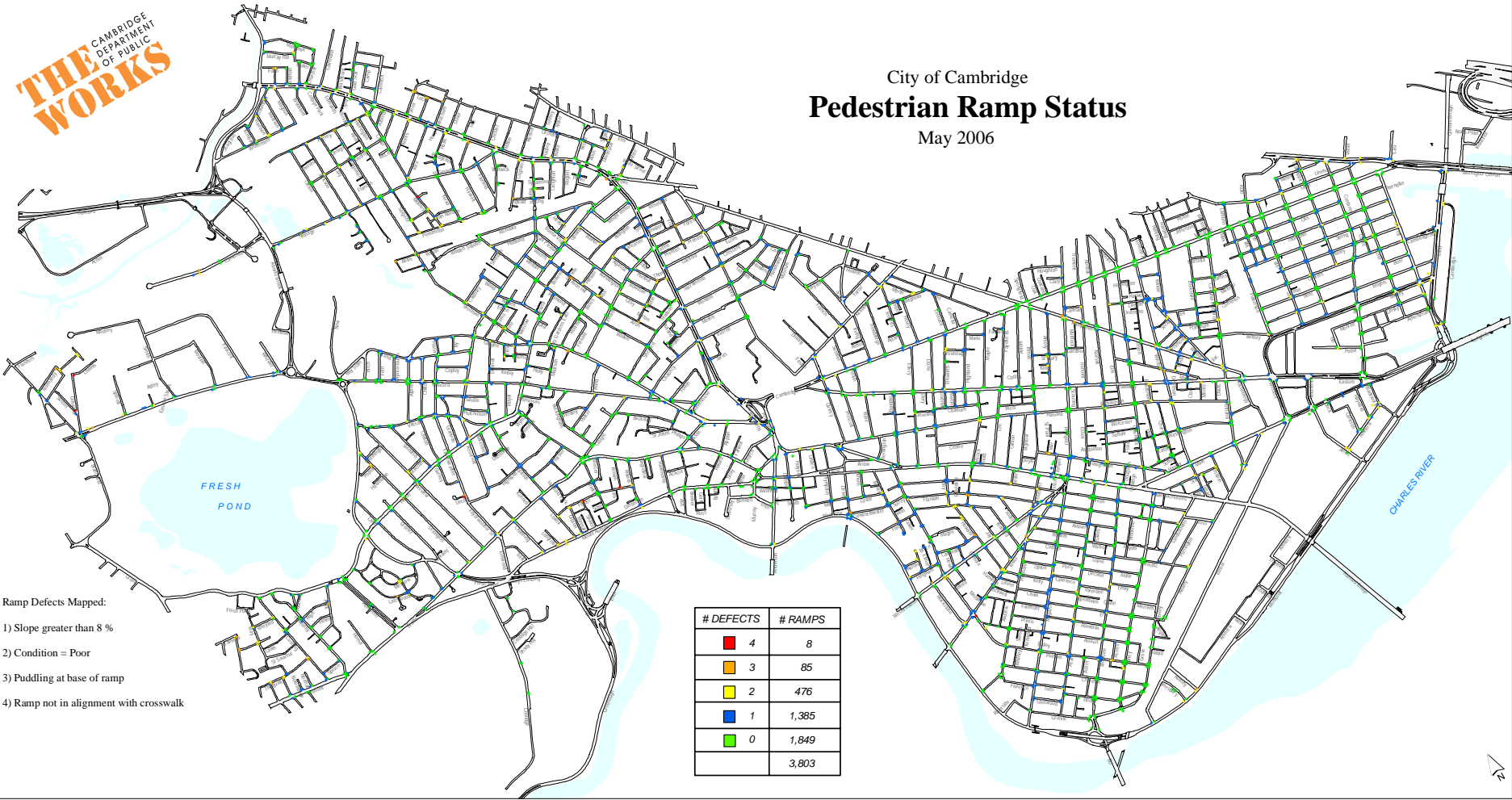
CITY OF CAMBRIDGE
**SIDEWALK MATERIAL
INDEX PLAN 2
(POOR CONDITION ONLY)**
MARCH 2006



Pedestrian Ramp Condition

- Number of Ramps With:
- 4 defects: 8 ramps
- Only 3 defects: 85 ramps
- Only 2 defects: 476 ramps
- Only 1 defect: 1,385 ramps
- None of the 4: 1,849 ramps

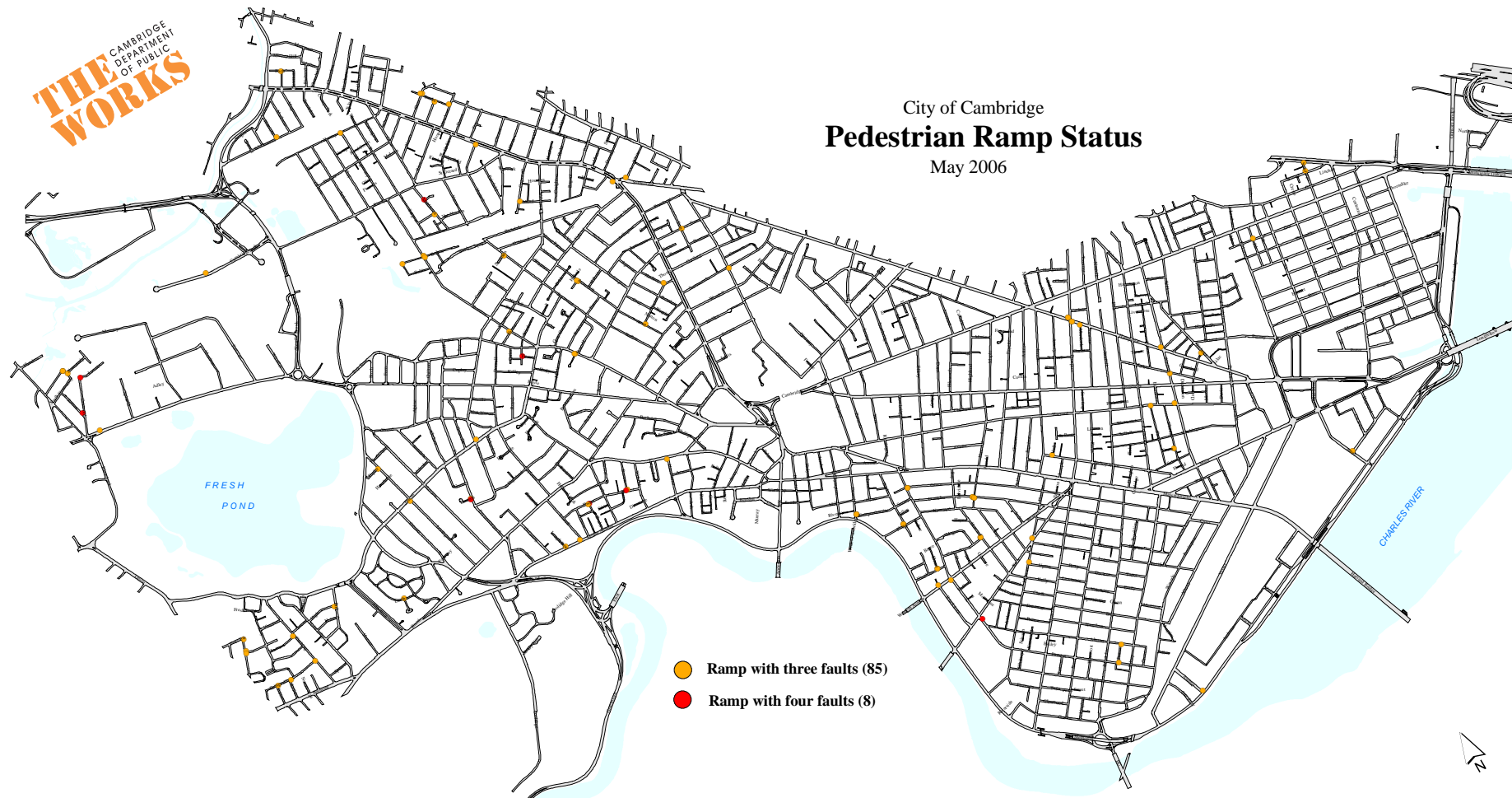
City of Cambridge
Pedestrian Ramp Status
May 2006



- Ramp Defects Mapped:
- 1) Slope greater than 8 %
 - 2) Condition = Poor
 - 3) Puddling at base of ramp
 - 4) Ramp not in alignment with crosswalk

CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**

City of Cambridge
Pedestrian Ramp Status
May 2006



City of Cambridge
Pedestrian Ramp Status
May 2006

FRESH
POND

CHARLES RIVER

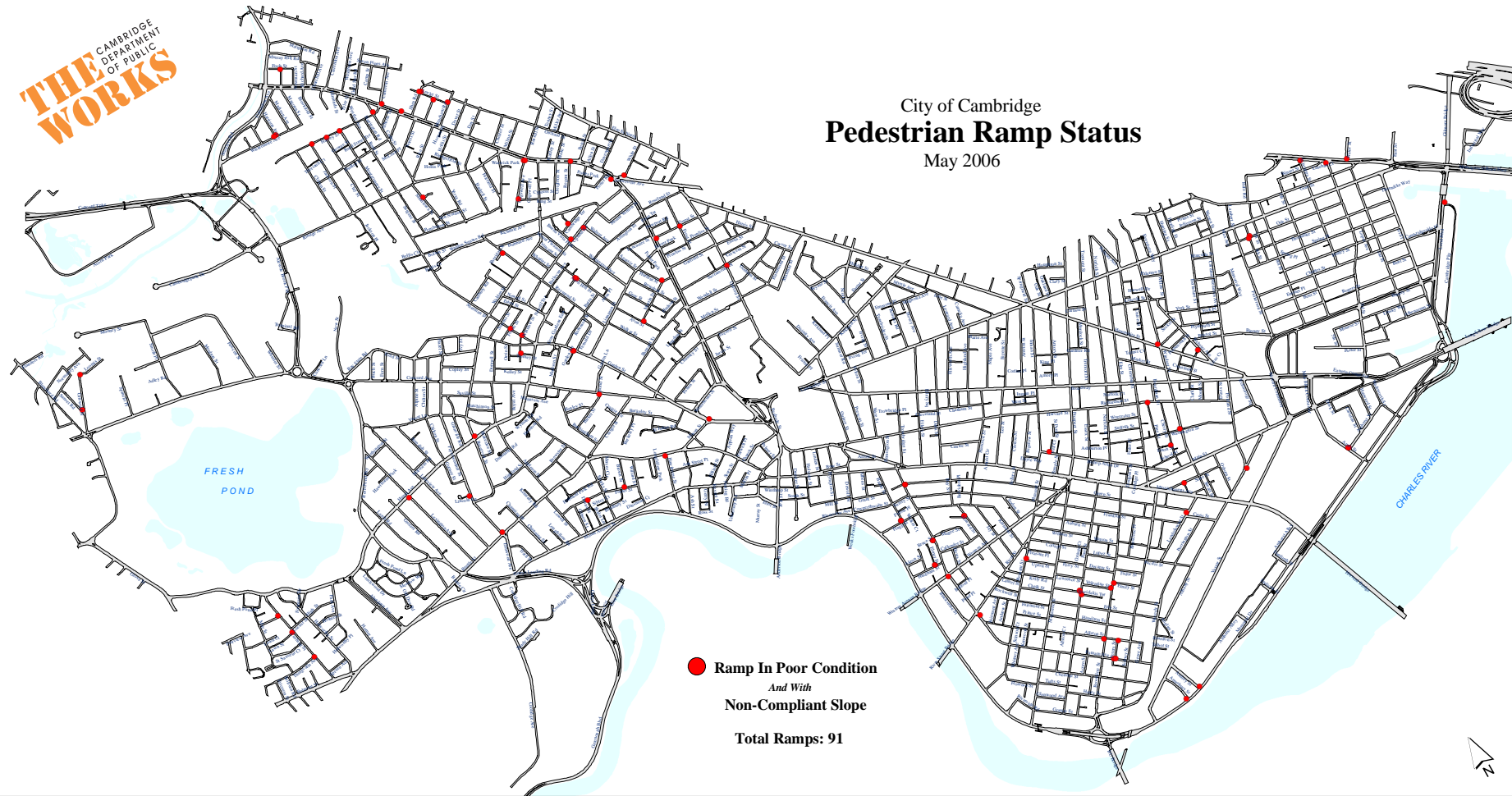
● Ramp with four faults
Total Ramps: 8



Pedestrian Ramp Condition

- Number of Ramps With:
Non Compliant Slopes &
Poor Structural Condition: 91 ramps

City of Cambridge
Pedestrian Ramp Status
May 2006



Sidewalk Improvement Costs

Pedestrian Ramp Prioritization

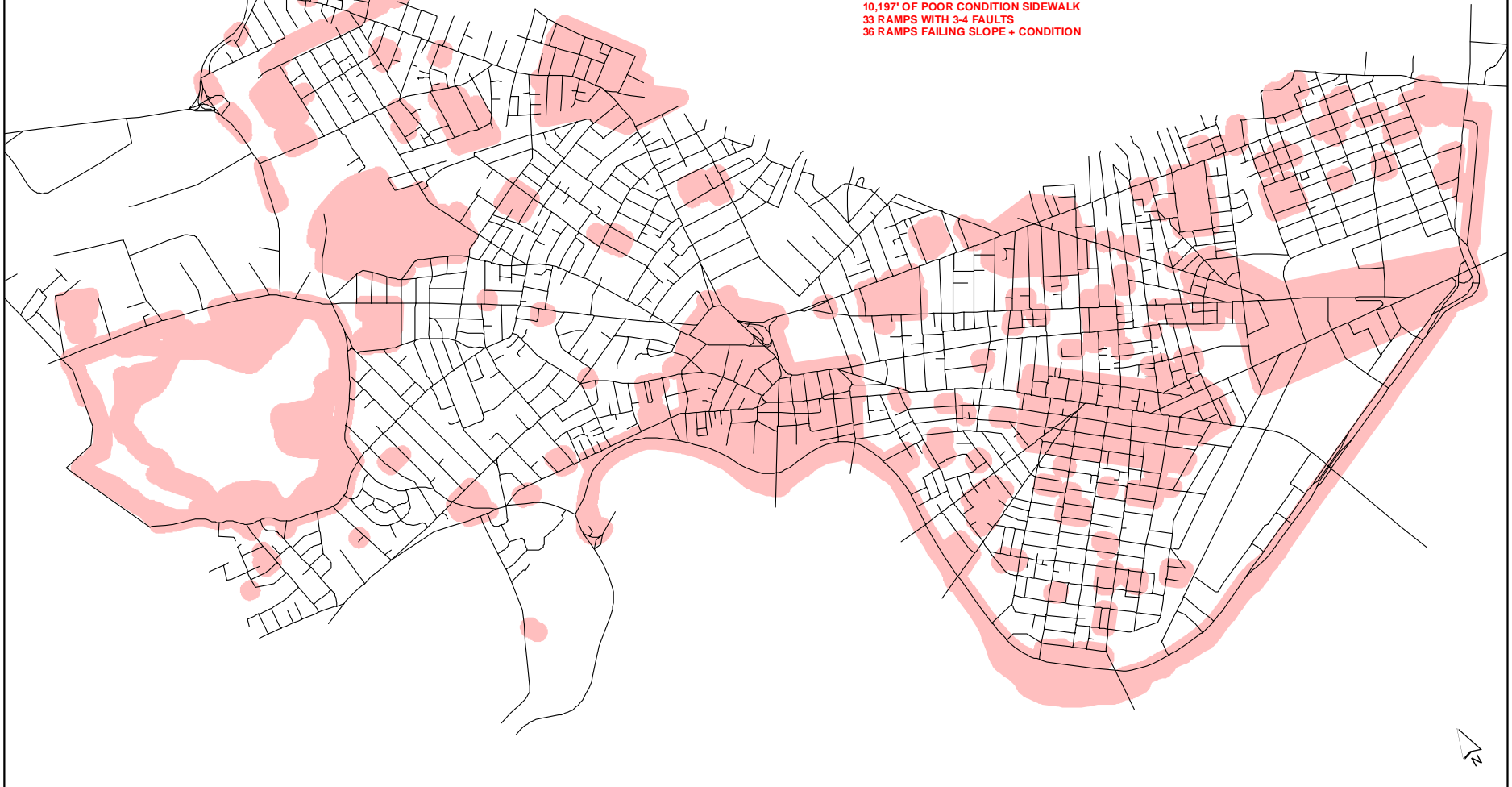
Locations of Criticality

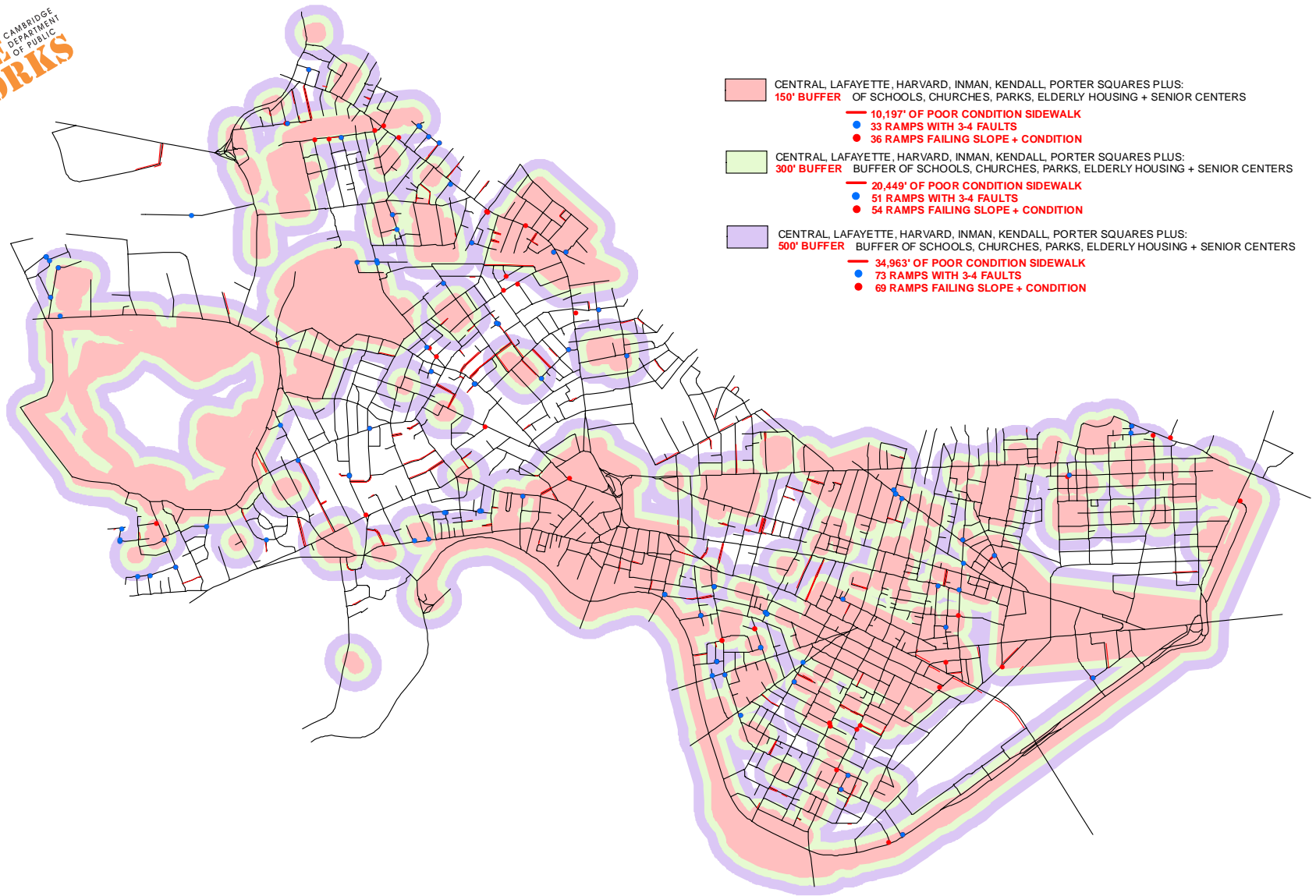
- 1) Major City Squares
- 2) Public Buildings
- 3) Senior Centers
- 4) Parks
- 5) Places of Worship
- 6) Senior Housing




Reconstruction Prioritization

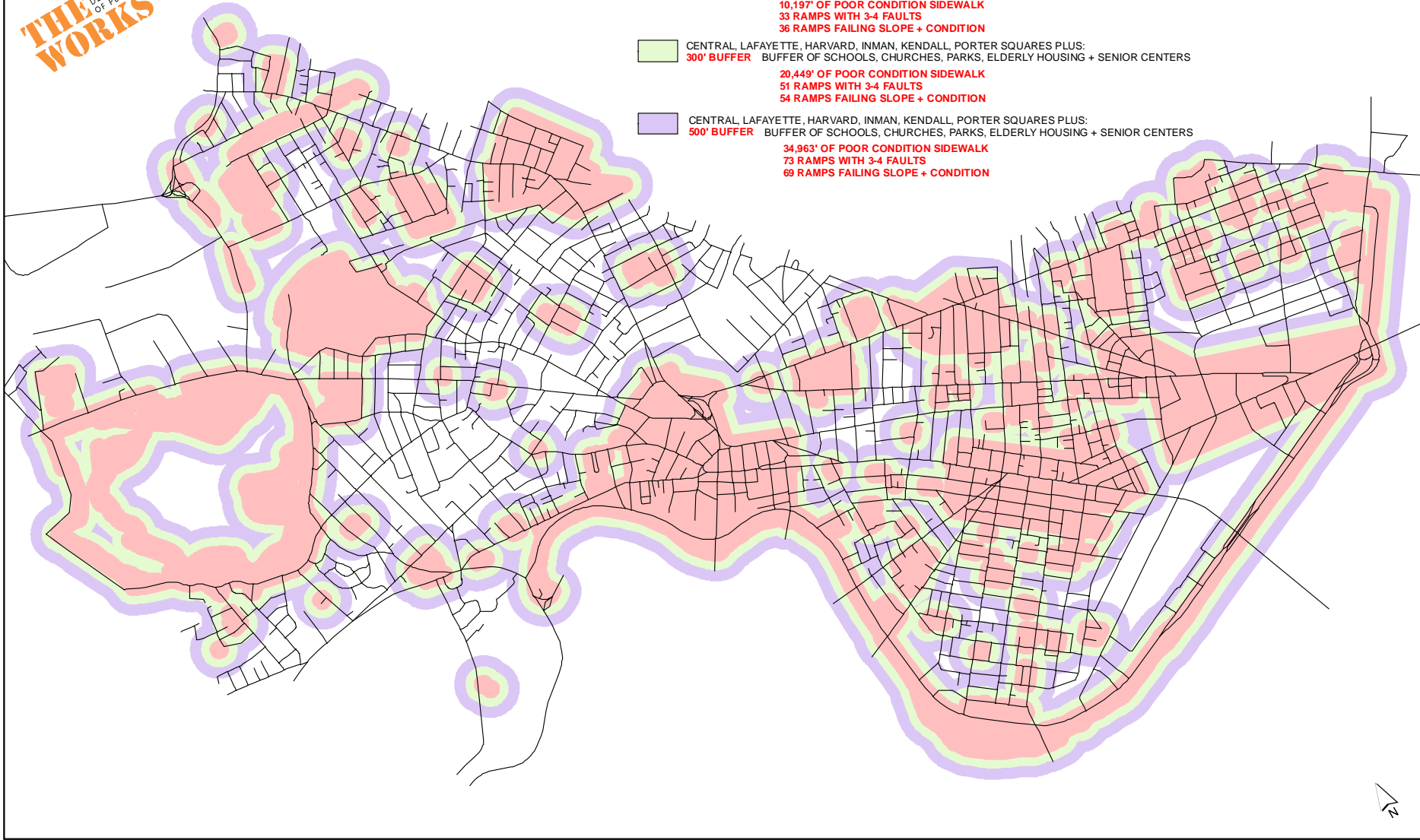
- Within 150 feet of sensitive areas
- Concrete Sidewalk: 4020 linear ft
- Brick Sidewalk: 2444 linear ft
- Asphalt Sidewalk: 1656 linear ft
- Pedestrian Ramps: 82 ramps

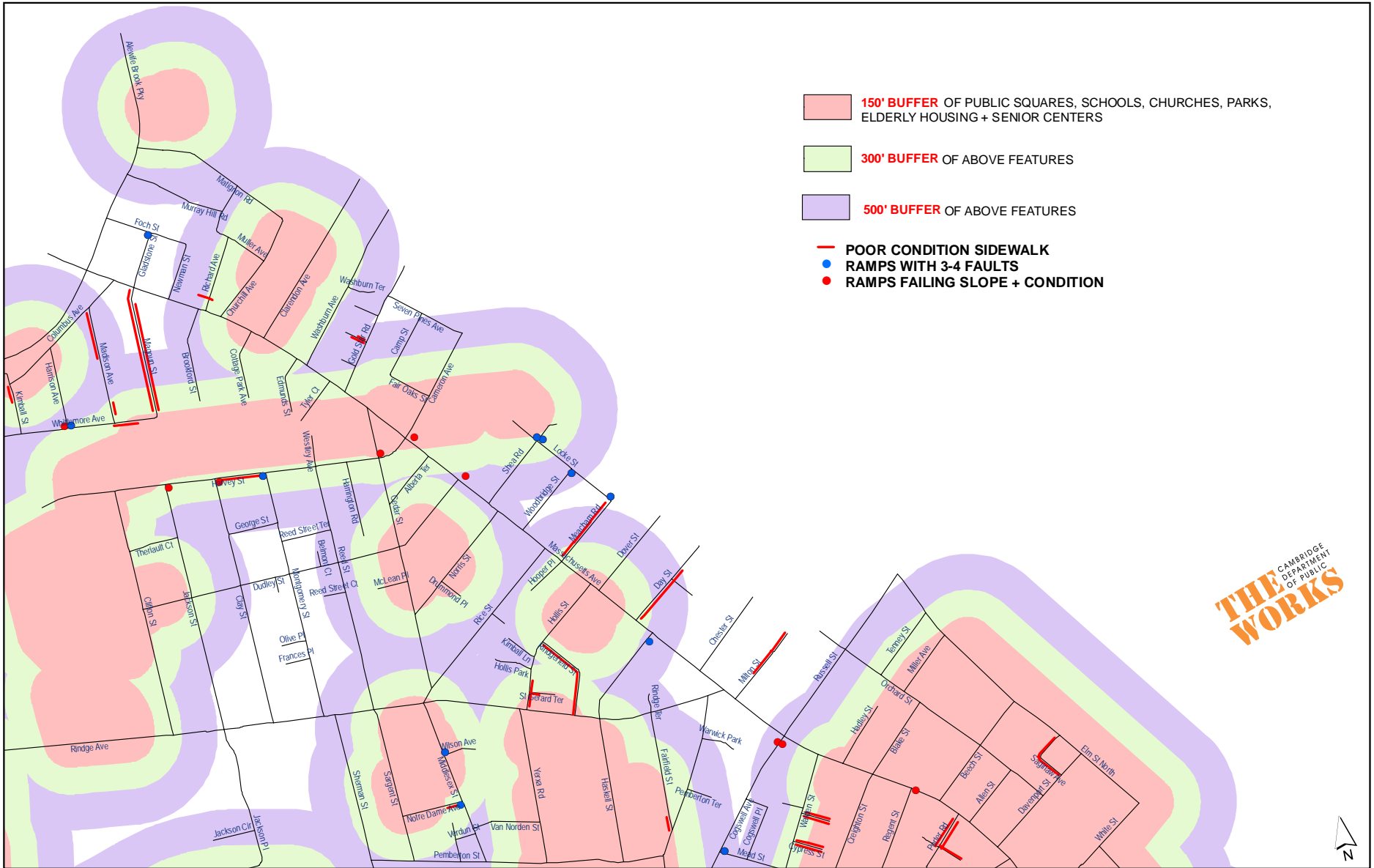
CENTRAL, LAFAYETTE, HARVARD, INMAN, KENDALL, PORTER SQUARES PLUS:
150' BUFFER OF SCHOOLS, CHURCHES, PARKS, ELDERLY HOUSING + SENIOR CENTERS
10,197' OF POOR CONDITION SIDEWALK
33 RAMPS WITH 3-4 FAULTS
36 RAMPS FAILING SLOPE + CONDITION





-  CENTRAL, LAFAYETTE, HARVARD, INMAN, KENDALL, PORTER SQUARES PLUS:
150' BUFFER OF SCHOOLS, CHURCHES, PARKS, ELDERLY HOUSING + SENIOR CENTERS
10,197' OF POOR CONDITION SIDEWALK
33 RAMPS WITH 3-4 FAULTS
36 RAMPS FAILING SLOPE + CONDITION
-  CENTRAL, LAFAYETTE, HARVARD, INMAN, KENDALL, PORTER SQUARES PLUS:
300' BUFFER BUFFER OF SCHOOLS, CHURCHES, PARKS, ELDERLY HOUSING + SENIOR CENTERS
20,449' OF POOR CONDITION SIDEWALK
51 RAMPS WITH 3-4 FAULTS
54 RAMPS FAILING SLOPE + CONDITION
-  CENTRAL, LAFAYETTE, HARVARD, INMAN, KENDALL, PORTER SQUARES PLUS:
500' BUFFER BUFFER OF SCHOOLS, CHURCHES, PARKS, ELDERLY HOUSING + SENIOR CENTERS
34,963' OF POOR CONDITION SIDEWALK
73 RAMPS WITH 3-4 FAULTS
69 RAMPS FAILING SLOPE + CONDITION





150' BUFFER OF PUBLIC SQUARES, SCHOOLS, CHURCHES, PARKS, ELDERLY HOUSING + SENIOR CENTERS

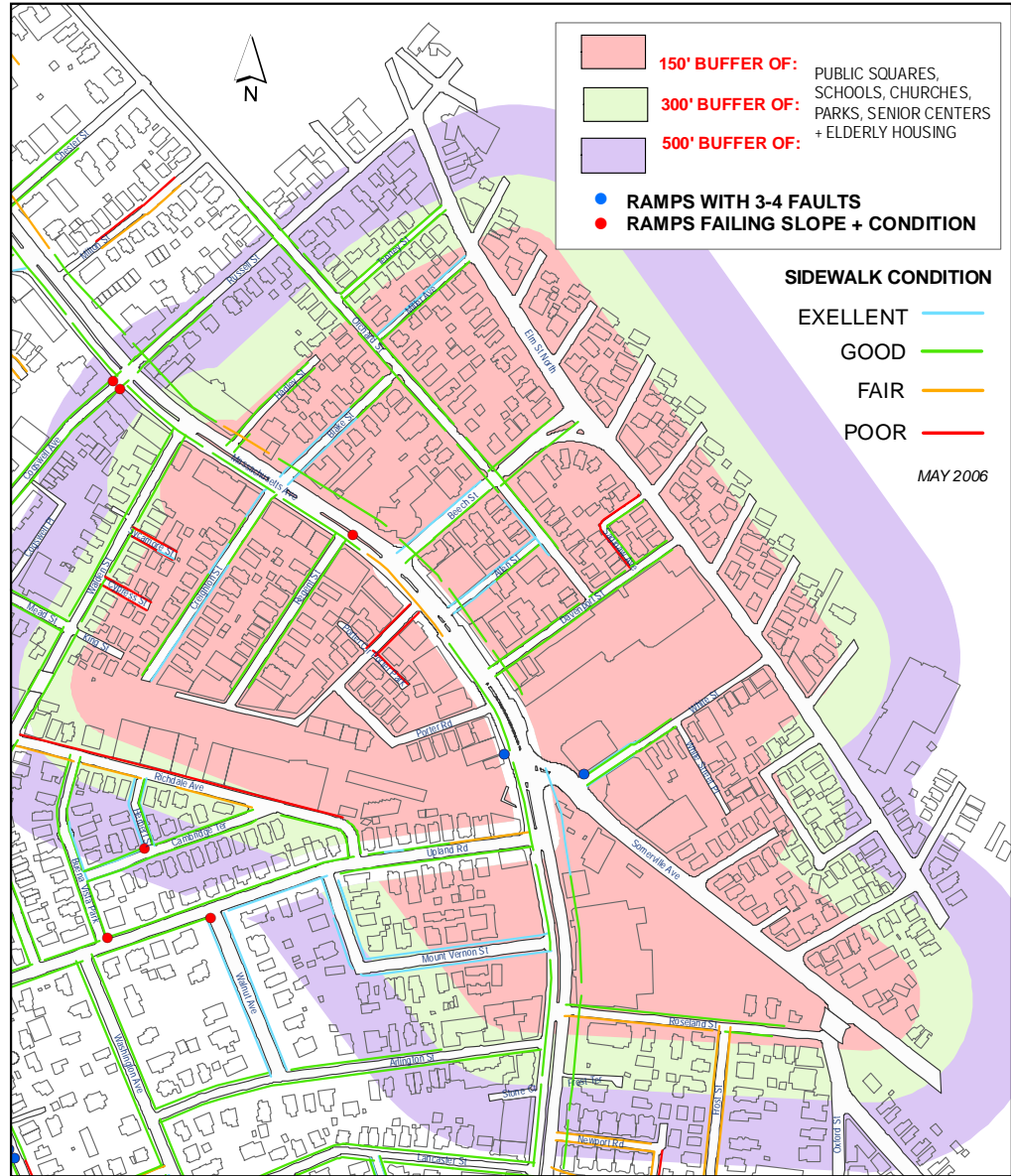
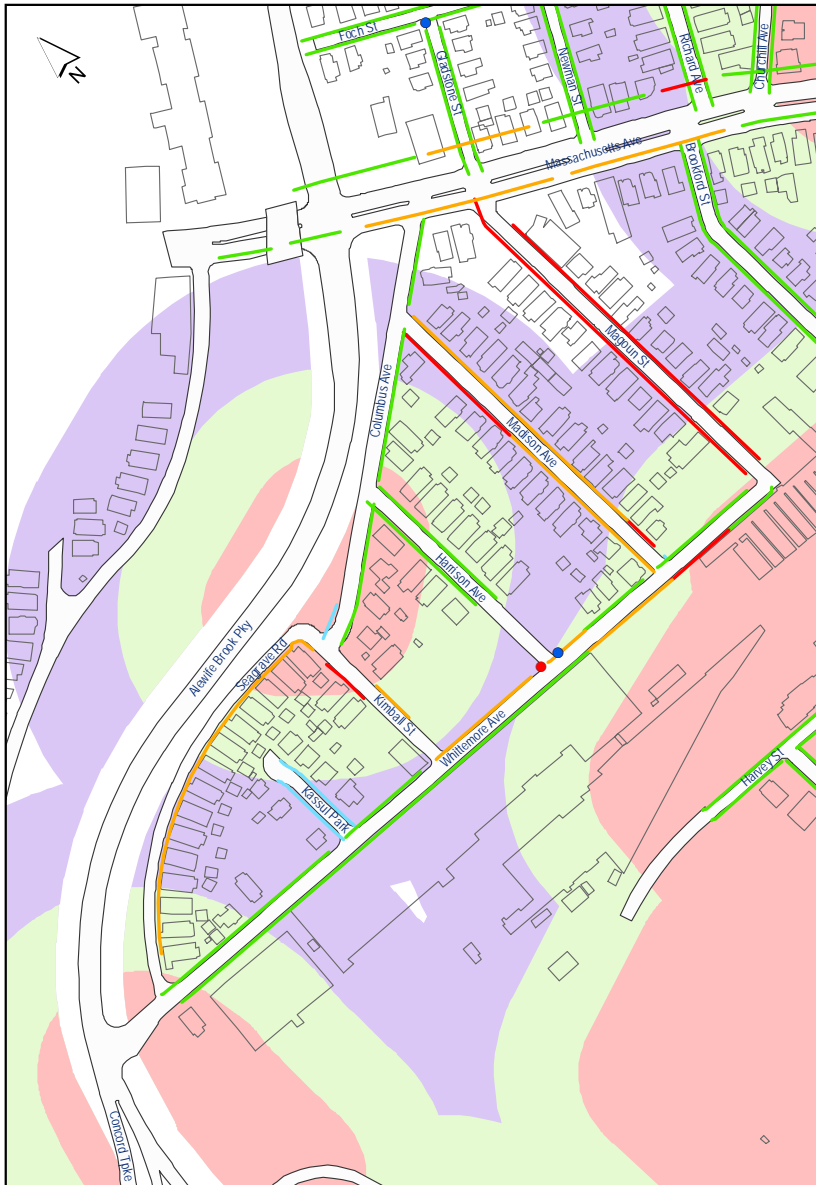
300' BUFFER OF ABOVE FEATURES

500' BUFFER OF ABOVE FEATURES

- POOR CONDITION SIDEWALK
- RAMPS WITH 3-4 FAULTS
- RAMPS FAILING SLOPE + CONDITION

THE CAMBRIDGE DEPARTMENT OF PUBLIC WORKS





150' BUFFER OF: PUBLIC SQUARES, SCHOOLS, CHURCHES, PARKS, SENIOR CENTERS + ELDERLY HOUSING

300' BUFFER OF:

500' BUFFER OF:

● RAMP WITH 3-4 FAULTS

● RAMP FAILING SLOPE + CONDITION

SIDEWALK CONDITION

EXCELLENT —

GOOD —

FAIR —

POOR —

MAY 2006

Moving Forward.....

- Prioritize accessibility through various city projects
- Improve, update and maintain sidewalk and pedestrian ramp database.
- Develop progress reports.